STANDARD / DOUBLE STANDARD MAGNETIC LOCK

INSTALLATION MANUAL
INDOOR ELECTROMAGNETIC LOCK SERIES

<table>
<thead>
<tr>
<th>Spec/Model</th>
<th>Single Door</th>
<th>Double Door</th>
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</thead>
<tbody>
<tr>
<td>GEM-300</td>
<td>300lbs (136kg)</td>
<td>600lbs (272kg)</td>
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<tr>
<td>GEM-600</td>
<td>600lbs (272kg)</td>
<td>800lbs (363kg)</td>
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<tr>
<td>GEM-800</td>
<td>800lbs (363kg)</td>
<td>1200lbs (545kg)</td>
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<tr>
<td>GEM-1200</td>
<td>1200lbs (545kg)</td>
<td>1200lbs (545kg)</td>
</tr>
<tr>
<td>GEM-D600</td>
<td>600lbs (272kg)x2</td>
<td>800lbs (363kg)x2</td>
</tr>
<tr>
<td>GEM-D800</td>
<td>800lbs (363kg)x2</td>
<td>1200lbs (545kg)x2</td>
</tr>
<tr>
<td>GEM-D1200</td>
<td>1200lbs (545kg)x2</td>
<td>1200lbs (545kg)x2</td>
</tr>
</tbody>
</table>

**Holding Force**
- 12/24VDC
- 500mA/12VDC
- 250mA/24VDC

**Voltage Input**
- 12/24VDC
- 500mA/12VDC
- 250mA/24VDC

**Current Draw**
- 250mA/24VDC
- 500mA/12VDC
- 250mA/24VDC
Standard Installation

1. Fold the mounting template 90°

2. Place the template to the proper position of the door and frame. Mark the hole positions of the template on the door and frame.

3. Drill the holes according to the marks.

4. Please install the armature plate as illustrated here. (Dimensions of the holes depend on the door types illustrated below.)

5. The rubber washer makes the surface of the armature plate adjustable in order to completely fit the surface of magnetic lock.

6. Fasten the mounting plate with the mounting screws. The position of the mounting screws should be adjustable.

7. Fix the mounting plate on the door with mounting screws.

8. Use the Allen wrench and fixing bolts to tighten the electromagnetic lock to mounting plate.

9. Connect the power and test the unit.

Recommendation:
For Micro EM-locks (300 LBS), maximum thickness of door is 44 mm.
For Mini EM-locks (600 LBS), maximum thickness of door is 50 mm.
For Midi EM-locks (800 LBS), maximum thickness of door is 48 mm.
For Maxi EM-locks (1200 LBS), maximum thickness of door is 46 mm.
Connecting Diagram

Model: GEM-300M

Control Device N.C. contact or Access Relay

12 or 24V Auto switchable

Bond sensor output
N.C. contact output: open status
N.O. contact output: locked status

LED indicator
GREEN: Open
RED: Locked
NO LED: No power

Sensor Input

Mag Power Input

Models:
GEM-300, GEM-600, GEM-800, GEM-1200
GEM-D600, GEM-D800, GEM-D1200

Door Status Sensor (optional)
Door Status Sensor indicates the door is in an open or closed status.
Models: DS series

Green LED (Default)
Red LED

Orange: N.O.
White: Com
Brown: N.C.

Timer Adjustment

Relock time delay (Optional)
Ensures the automatic lock mode works after the door is closed properly and it can be adjusted from 1 to 80 seconds.
Models: TD series

Door Status Sensor (optional)
Door Status Sensor indicates the door is in an open or closed status.
Models: DS series

(Bar code)

GEM-300MDS-TD-LD, GEM-800MDS-TD-LD,
GEM-1200MDS-TD-LD, GEM-800MTD-LD,
GEM-D600, GEM-D800, GEM-D1200

12 or 24V Auto switchable
## Problem | Possible Cause | Solution
--- | --- | ---
Door does not lock | No power | Make sure the wires are connected properly
| | Check that the power supply is connected and works properly | Make sure the lock switch is wired correctly (N.C.)
Low holding force | Poor contact between electromagnet and armature plate | Make sure if the armature plate is deformed
| | Make sure if the rubber washer was used between magnet lock and armature plate | Make sure the contact surfaces of the electromagnet and armature plate are clean and free from dust
| | Low voltage or incorrect voltage setting | Ensure the electromagnet lock is set for the correct voltage.
| | Check for proper voltage at the electromagnetic locks input. If low, determine if the correct wire gauge is being used to prevent excessive voltage drop. |  
Sensor output is not functioning | A secondary diode was installed across the electromagnetic lock | Remove any diode installed across the magnet for "spike" suppression. The magnet is fitted with a metal oxide varistor to prevent back EMF
| | Misalignment between the armature plate and electromagnetic lock | Make sure the armature plate and electromagnetic lock are aligned correctly

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### Trouble Shooting

- **Door Status Sensor (optional)**
  - Door Status Sensor indicates the door is in an open or closed status.
  - Models: GEM-600MDS, GEM-800MDS, GEM-1200MDS
  - GEM-D600MDS, GEM-D800MDS, GEM-D1200MDS

- **Bond sensor output**
  - N.C. contact output: open status
  - N.O. contact output: locked status
  - Models: GEM-600M, GEM-800M, GEM-1200M
  - GEM-D600M, GEM-D800M, GEM-D1200M

- **Relock time delay (Optional)**
  - Ensures the automatic lock mode works after the door is closed properly and it can be adjusted from 1 to 80 seconds.
  - GEM-600M, GEM-800M, GEM-1200M
  - GEM-D600M, GEM-D800M, GEM-D1200M

- **Buzzer Alarm (on the reverse)**
  - Door Held Open Alarm is an auditory feedback for users. Alarm sounds when the door is not closed for over a specified time limit. VR timer (Timer Adjustment) is adjustable from 1 to 80 seconds.
  - (Available for GEM-800MBZ & GEM-1200MBZ)
  - GEM-D800MBZ & GEM-D1200MBZ)

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### Connecting Diagram

- Orange: N.O.
- White: Com.
- Brown: N.C.
- N.O. COM. N.C.
- Mag Power Input
- Sensor Input
- Timer Adjustment
- LED indicator
  - GREEN: Open
  - RED: Locked
  - NO LED: No power
- Control Device N.C. contact or Access Relay
- 12 or 24V Auto switchable
- Bond sensor output
  - N.C. contact output: open status
  - N.O. contact output: locked status
  - Models:
    - GEM-600M, GEM-800M, GEM-1200M
    - GEM-D600M, GEM-D800M, GEM-D1200M

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### Models:

- GEM-600M, GEM-800M, GEM-1200M
- GEM-D600M, GEM-D800M, GEM-D1200M
- GEM-600M, GEM-800M, GEM-1200M
- GEM-D600M, GEM-D800M, GEM-D1200M
- GEM-D800MBZ & GEM-D1200MBZ)
The warranty period of Transmitter Solutions magnetic locks is twenty-four (24) months. This warranty shall begin on the date the keypad is manufactured. During the warranty period, the product will be repaired or replaced (at the sole discretion of Transmitter Solutions) if the product does not operate correctly due to a defective component. This warranty does not extend to (a) the case, which can be damaged by conditions outside the control of Transmitter Solutions, or (b) battery life. This warranty is further limited by the following disclaimer of warranty and liability:

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